

Work Order ID 52944-1

October 23, 2009 8:11:20 AM

split for one



Page 1

Item ID: D3943-041 *41* Accept

Revision ID: B

Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09 Start Qty: 10.00

Required Date: 10/22/09 Req'd Qty: 10.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan: *W*

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3943

B

0.00

0.00

0.00

0.00

100



Purchasing

Purchasing

Memo

Issue P/O: *10594*

Purchase Part Number: 8143919

Supplier: Princess Auto

Certificate of conformity is required

Description: 4000 lbs lever chain hoist

12 09/10/19 (1)

110



Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

Ensure material certification is attached

12 09/10/22 (1)

Work Order ID 52944

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Page 2

Item ID: D3943-041

Accept



Setup Start



Revision ID: B

Stop



Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09 Start Qty: 10.00



Cust Item ID:

Required Date: 10/22/09 Req'd Qty: 10.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

2) 5 Oct 123

0.00

Memo



130



Large Fab

Large Fab

Memo

1-Disassemble chain host as per dwg

2-Drill handle ass'y (D3943-051) as per dwg

3-Weld D3943-7 stud and D3943-5 plate as per dwg

4-Weld D3954-5 and -9 to supplied chain, discard hooks

A/R Steel Welding Rod Batch: M9326

0.00

0.00

Gpl 09 10 26





Work Order ID 52944

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Page 3

Item ID: D3943-041

Accept



Setup Start



Revision ID: B

Stop



Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09 Start Qty: 10.00



Cust Item ID:

Required Date: 10/22/09 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

AB 09.10.26

150

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

PD 09.10.26

Work Order ID 52944

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Page 4

Item ID: D3943-041

Accept



Setup Start



Revision ID: B

Stop



Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09 Start Qty: 10.00



Cust Item ID:

Required Date: 10/22/09 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

Fire Red(Ref:4.3.5.10) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

*****mask chain as per dwg*****

Powder Coating

Powder Coat handle (D3943-051) and chain lug (D3943-5) as per dwg Fire Red (Ref: 4.3.5.10) as per QSI005 4.3

Spray paint yellow

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

ml 09 10 29

170

QC3-Inspect Part Finish

0.00



QC

Quality Control

Memo

0.00

QC4

18 09 -10 -26

Work Order ID 52944

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Page 5

Item ID: D3943-041

Accept



Setup Start



Revision ID: B

Item Name: Ground Handling Crank Assembly

Stop



Start Date: 10/19/09 Start Qty: 10.00



Cust Item ID:

Required Date: 10/22/09 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

Cpl 09.10.29

190

0.00



Large Fab

Memo

1-Assemble as per dwg

0.00

2-Calibrate as per dwg

Pl 09.10.29
B 09.10.29

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

1 *09.10.29*

Work Order ID 52944

October 23, 2009 8:11:21 AM



Page 6

Item ID: D3943-041

Accept



Setup Start



Revision ID: B

Stop



Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09 Start Qty: 10.00



Cust Item ID:

Required Date: 10/22/09 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

210

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

PPP
53146

0.00

Packaging

09/10/29

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/10/29

MF
09-10-29

Picklist Print

October 19, 2009 11:16:55 AM

Page 1

Work Order ID: 52944

Parent Item: D3943-041RevA

Parent Item Name: Ground Handling Crank Assembly

Comments:

Start Date: 10/19/09

Required Date: 10/22/09

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2690-4  LANYARD		Manufactured	No			180	Each	9.0000	10.0000			
---	--	--------------	----	--	--	-----	------	--------	---------	--	--	--

343534-CP109.10.26

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

48534

8143919

Purchased

No

110

Each

0.0000

10.0000

Lever Chain Hoist

MS21042-4

Purchased

No

170

Each

113.0000

10.0000

USE MS21042L4

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

100743

113

5389

9

5461

82

6844

3

19

MS21042L5 → M111636
18 CP109.10.26

① CP109.10.26

B5 2944 MF 09-10-29

① CP109.10.26

Picklist Print

October 19, 2009 11:16:55 AM

Page 2

Work Order ID: 52944



Parent Item: D3943-041RevA



Parent Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09

Required Date: 10/22/09

Comments:

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3943-3RevA

Manufactured

No

180

Each

3.0000

10.0000



Handle Extension

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

3

52094

3

D3954-7RevA

Manufactured

No

180

Each

6.0000

10.0000



Ratchet Lug

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

6

52099

6

AN960-416

Purchased

No

180

Each

182.0000

10.0000



Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

182

111808

149

19356

7

5519

26

① 9/10/09 10-26

① 9/10/09 10-26

① 9/10/09 10-26

October 19, 2009 11:16:55 AM

Shop Packet Print

Page 2

Picklist Print

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Page 3

Work Order ID: 52944

Parent Item: D3943-041RevA

Parent Item Name: Ground Handling Crank Assembly


Comments:

Start Date: 10/19/09

Required Date: 10/22/09


Start Qty: 10.00

Required Qty: 10.00


Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
S1475  inventory		Purchased	No			180	Each	3.0000	10.0000			

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	3	
17303	3	

ANS-12A → M110467 → ①
Bolt
Cpl 09.10.26

180	Each	113.0000	10.0000
			

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	113	
103962	8	
108986	13	
111425	92	

D3585-1RevA  Set Screw		Manufactured	No			180	Each	20.0000	10.0000			
---	--	--------------	----	--	--	-----	------	---------	---------	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	20	
31571	20	

① Cpl 09.10.26

① Cpl 09.10.26

October 19, 2009 11:16:55 AM

Shop Packet Print

Page 3

Picklist Print

October 19, 2009 11:16:55 AM

Page 4

Work Order ID: 52944



Parent Item: D3943-041RevA



Parent Item Name: Ground Handling Crank Assembly

Start Date: 10/19/09

Required Date: 10/22/09

Comments:

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3949-041RevA Manufactured

No

180

Each

48.0000

10.0000



Remove before Flight Flag Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

48

48280

48

HX-15

Purchased

No

180

Each

396.0000

30.0000



① 1/4-20 UNCx3/4 S.H.C.S.

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

396

110684

196

110759

200

D3943-051RevA

Manufactured

No

180

Each

1.0000

10.0000



Handle Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1

52714

1

October 19, 2009 11:16:55 AM

Shop Packet Print

Page 4

PL09-10-26

① ③ PL09-10-26

PL09-10-24

~~B3943-051~~ B53153 → ①

Picklist Print

October 19, 2009 11:16:56 AM

Page 5

Work Order ID: 52944

Parent Item: D3943-041RevA

Parent Item Name: Ground Handling Crank Assembly


Comments:

Start Date: 10/19/09

Required Date: 10/22/09

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3943-053RevA  Chain Assembly		Manufactured	No			180	Each	1.0000	10.0000			

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

52713

1

1

180

Each

19.0000

10.0000

3408A59



BALL PLUNGER

Purchased

No

B53154 → ① 10/19/09

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

111948

19

19

① 10/19/09

CBL-460
M113002 x2
#

October 19, 2009 11:16:56 AM

Shop Packet Print

Page 5

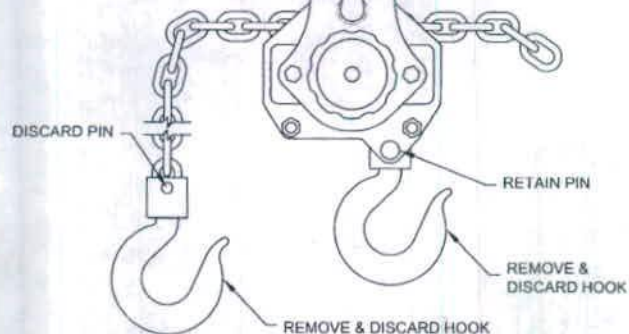
ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
12	1			D3943-3	HANDLE EXTENSION	
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
26			1	D3954-9	GWT CHAIN PIN	
31	1			AN4-10A	BOLT	
32	1			AN960-416	WASHER	
33	1			MS21042-4	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
41	1			S-1475	SPRING	REID SUPPLY
42	1			3408A59	BALL PLUNGER	McMASTER CARR
43	3			HX-15	SOCKET HEAD CAP SCREW 1/2-20 UNC X 0.75 LG	HASKINS

WFO
52944

RELEASED
09/05/13

A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3943	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.05.13	COPYRIGHT © 2009 BY DART AEROSPACE LTD	

REMOVE AND RETAIN
RUBBER HAND GRIP

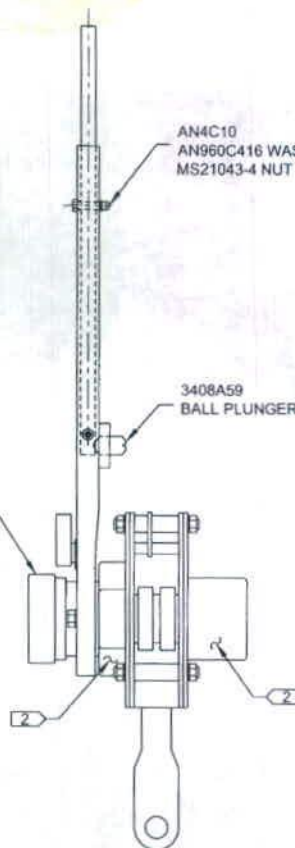


8143919 LEVER CHAIN HOIST
(SHOWN PRIOR TO MODIFICATION)
(CHAIN SHOWN SHORTENED FOR CLARITY)

NOTES -041:

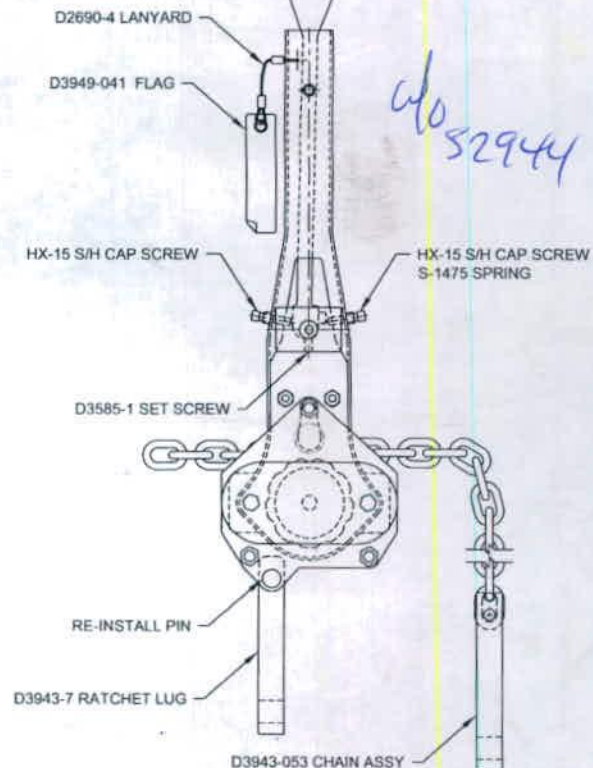
- 1) MATERIAL: N/A
- 2) FINISH: DISASSEMBLE LEVER CHAIN HOIST (ITEM 39) AND POWDER COAT "RED" (4.3.5.10) PER DART QSI 005 4.3 PARTS INDICATED
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3943-041" USING FINE POINT PERMANENT INK MARKER

8143919
LEVER CHAIN HOIST



(CHAIN NOT SHOWN FOR CLARITY)

RE-INSTALL
RUBBER HAND-GRIP
HERE



(CHAIN SHOWN SHORTENED FOR CLARITY)

D3943-041 GROUND HANDLING CRANK ASSEMBLY

RELEASED
09/05/13

DESIGN	DSTOW/AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3943	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.05.13	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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D3943-1 HANDLE

2 PL

9.75

2.00

0.41

Ø0.30

THRU

Ø0.12

THRU

D3943-7 STUD
2 PL

THREAD $\frac{1}{4}$ -20 UNC-2B
2 PL

THREAD $\frac{1}{4}$ -20 UNC-2B
THRU



VIEW A-A A5-3
(SCALE 2X) B5-3

2 PL

9.37

A B1-3

A B1-3

D3943-5 PLATE

D3943-051 HANDLE ASSEMBLY

NOTES -051:

- 1) MATERIAL : N/A
- 2) FINISH: POWDER COAT "RED" (4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.08 ALL OTHERS
PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO POWDER COATING

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3943	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.05.13	COPYRIGHT © 2009 BY DART AEROSPACE LTD	

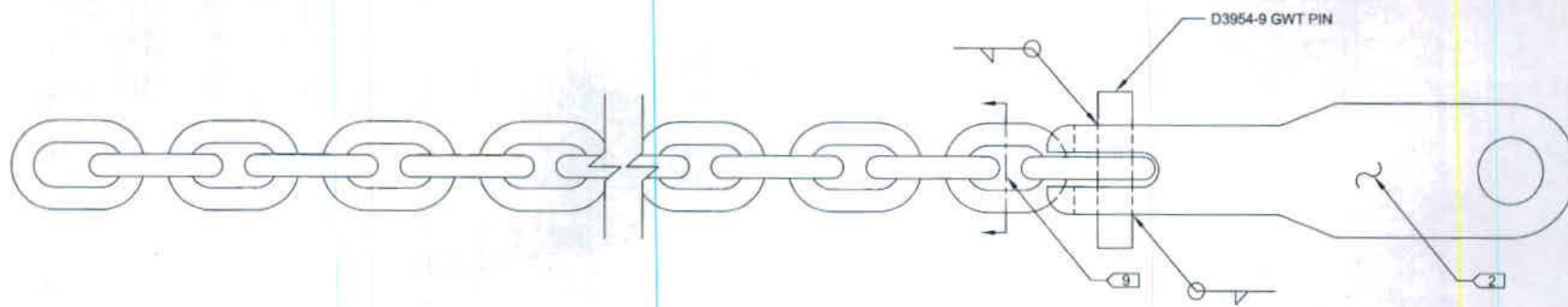
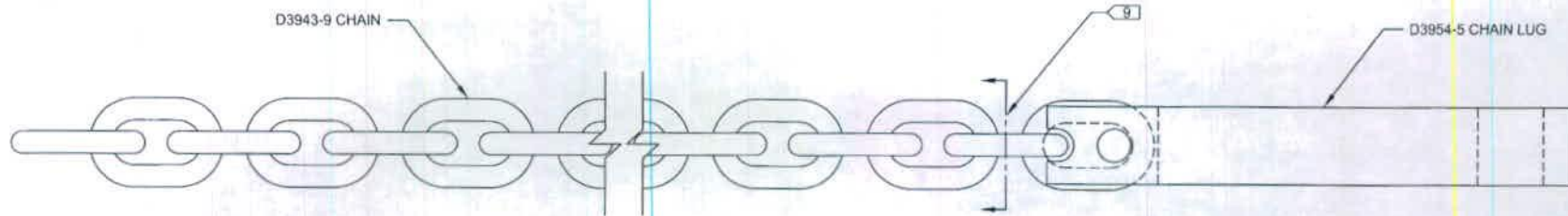
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RELEASED
04/06/03

WLO 52944

8 7 6 5 4 3 2 1

40 52944



D3943-053 CHAIN ASSEMBLY

RELEASED
09/06/03 JWP

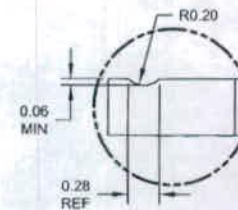
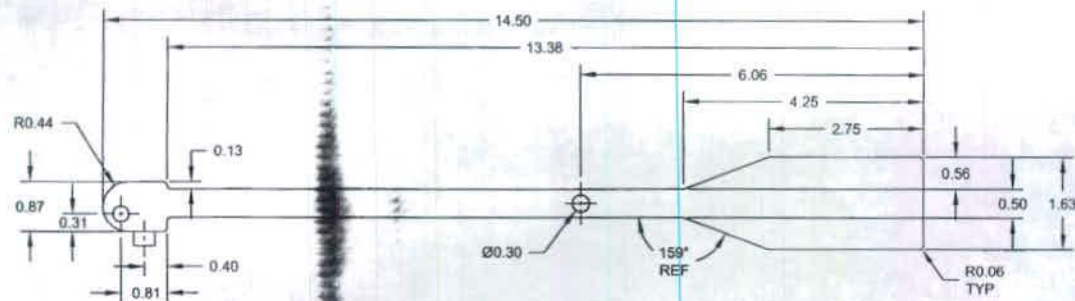
NOTES -053:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) WELD PER QSI 004
- 9) MASK CHAIN FROM THIS POINT ON PRIOR TO POWDER COATING

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3943	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
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8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

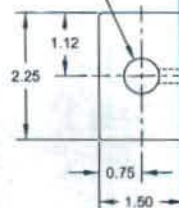


DETAIL B-B
(SIMPLE DETAIL)
(SCALE 2X)

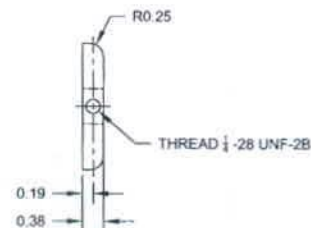


D3943-3 HANDLE EXTENSION

THREAD $\frac{1}{8}$ -11 UNC-2B



D3943-5 PLATE



Ø0.37 PILOT HOLE PER SHOP REQUIREMENT



D3943-7 STUD
(SCALE 2X)

RELEASED
09/16/13

NOTES -11/-13:

1) MATERIAL -3 & -5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S

OR: MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

- 2) FINISH -3: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005.4.3 PARTS INDICATED
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG APPR	<i>[Signature]</i>	D3943	SHEET 5 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR	<i>[Signature]</i>	GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.05.13	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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THE UNIQUE WORLD OF

PRINCESS AUTO

PO Box 1005 Winnipeg, MB R3C 2W7

Phone (204) 667-4630 Fax (204) 663-7663 www.princessauto.com

A/R CHARGE

DATE	INVOICE NUMBER	ACCOUNT NUMBER	STORE NUMBER
21/10/2009 DD / MM / YY	553915	073126	15

BILL TO:DART AEROSPACE EX
1270 ABERDEEN ST
HAWKESBURY, ON K6A1K7**SHIP TO:**DART AEROSPACE EX
1270 ABERDEEN ST
HAWKESBURY, ON K6A1K7

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	G 8143919 - HOIST CHAIN 2 TON LEVER	\$159.99	\$159.99
1	G 9999998 - HANDLING FEE	\$6.00	\$6.00
<div>809/10/23</div> <div>PO# 10594</div>			

I CERTIFY THAT THE GOODS AND SERVICES PURCHASED HEREIN ARE ELIGIBLE FOR
EXEMPTION FROM RETAIL SALES TAX FOR THE PURPOSE OF RESALE AND MANUFACTURING.

SUBTOTAL \$165.99

PST \$0.00

GST / HST \$8.30

PRINT NAME

SIGNATURE

TERMS: NET 30 DAYS.
2% PER MONTH (24% PER ANNUM COMPOUNDED MONTHLY) INTEREST ON OVERDUE ACCOUNTS.

P.O. NUMBER

Vendor Permit #: 101272607

TOTAL \$174.29Please Pay
A/R Account \$174.29PRINCESS AUTO RESPECTS YOUR PRIVACY.
FOR MORE INFORMATION VISIT www.princessauto.com/privacy
OR ASK A TEAM MEMBER.

G.S.T. REG. #R104304738

*Our Royal Service Promise***NO SALE IS FINAL UNTIL YOU'RE SATISFIED!**



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO10594

Purchase Order Date 10/19/09

PO Print Date 10/19/09

Page Number 1 of 1

Order From :

VC-PRI001

PRINCESS AUTO LTD.
P.O. BOX 1005
WINNIPEG, MB R3C 2W7
CA

FAXED
OCT 10 10 09

Contact Name
Vendor Phone 613 247 1651
Vendor Fax 613 247 1657
Vendor Account Nbr

Buyer Linda Lacelle
Requisition Nbr
Tax Resale Nbr 10127-2607
Terms Net 30
Currency CAD
FOB

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	8143919	Lever Chain Hoist	10/21/09 Yes	10.00 Each	Purolator ground	\$159.0000	\$1,590.00

REC'D 1 P D 9/10/22

Special Inst: please ship purolator collect acct#7684382

PO Total:

\$1,590.00

Change Nbr: 1

Change Date: 10/19/09

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
12	1			D3943-3	HANDLE EXTENSION	
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
28			1	D3954-9	GWT CHAIN PIN	
31	1			AN5-11A	BOLT	
32	1			AN960-516	WASHER	
33	1			MS21042L5	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
41	1			S-1475	SPRING	REID SUPPLY
42	1			3408A59	BALL PLUNGER	McMASTER CARR
43	3			HX-15	SOCKET HEAD CAP SCREW 1/2-20 UNC X 1.0 LG	HASKINS

RELEASED
2009-10-19

B	SHT 1 PL, ITEM 31 WAS AN4-10A, ITEM 32 WAS AN960-416, ITEM 33 WAS MS21042-4, ITEM 43 WAS 0.75 LG. SHEETS 2 - 5 NOTES: FINISH FOR ALL COMPONENTS NOW YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS	DRAWING NO.	REV. B
CHECKED		D3943	SHEET 1 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS LOANED TO THE REQUESTOR UNDER THE CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	09.10.15		

REMOVE AND RETAIN
RUBBER HAND GRIP

DISCARD PIN

RETAIN PIN

REMOVE &
DISCARD HOOK

8143919 LEVER CHAIN HOIST
(SHOWN PRIOR TO MODIFICATION)
(CHAIN SHOWN SHORTENED FOR CLARITY)

NOTES -041:

- 1) MATERIAL: N/A
- 2) FINISH: DISASSEMBLE LEVER CHAIN HOIST (ITEM 39) AND
SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3943-041" USING FINE POINT PERMANENT INK MARKER



AN5-11A BOLT
AN960-516 WASHER
MS21042L5 NUT

3408A59
BALL PLUNGER

8143919
LEVER CHAIN HOIST

(CHAIN NOT SHOWN FOR CLARITY)

RE-INSTALL
RUBBER HAND-GRIP
HERE

D3943-3
HANDLE EXTENSION

D2690-4 LANYARD

D3949-041 FLAG

HX-15 S/H CAP SCREW

HX-15 S/H CAP SCREW
S-1475 SPRING

D3585-1 SET SCREW

RE-INSTALL PIN

D3943-7 RATCHET LUG

D3943-053 CHAIN ASSY

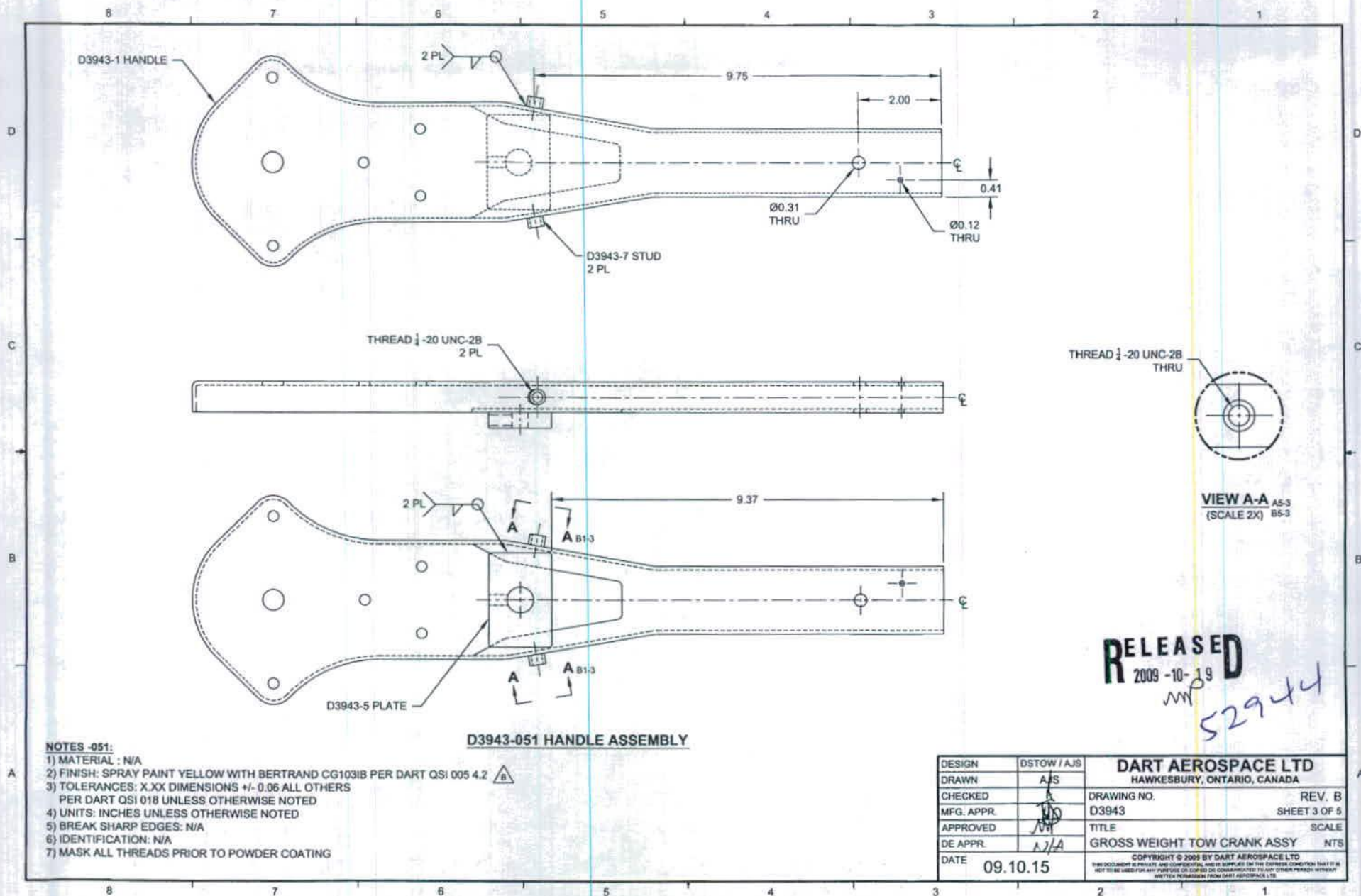
(CHAIN SHOWN SHORTENED FOR CLARITY)

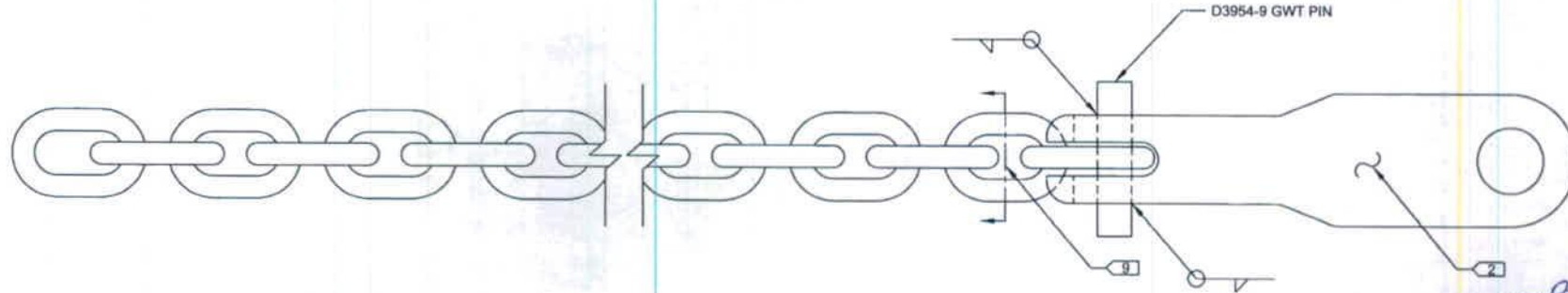
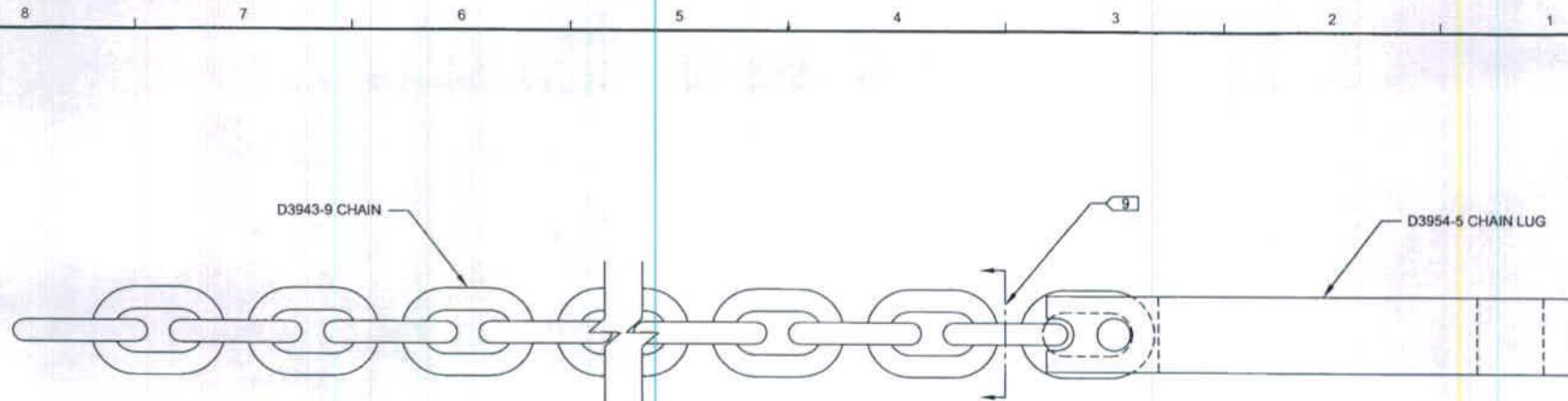
D3943-041 GROUND HANDLING CRANK ASSEMBLY

RELEASED
2009-10-19

DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS	DRAWING NO.	REV. B
CHECKED		D3943	SHEET 2 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.		COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT PERMISSION FROM DART AEROSPACE LTD	
DATE	09.10.15		

52944





D3943-053 CHAIN ASSEMBLY

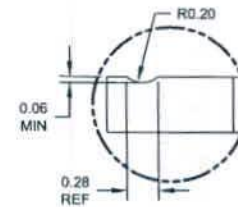
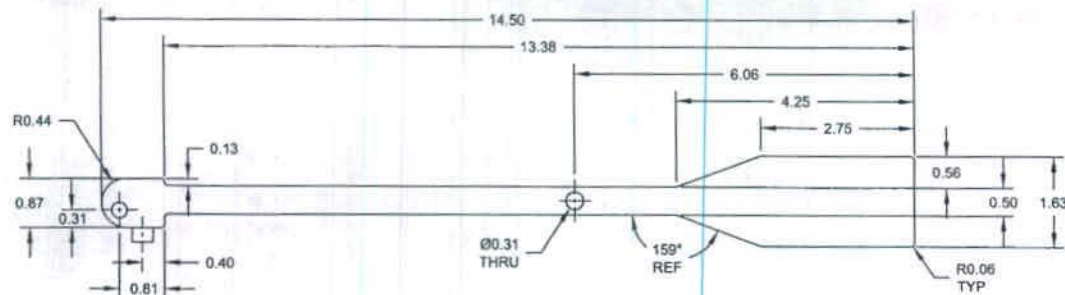
RELEASED
2009-10-18
MM

NOTES -053:

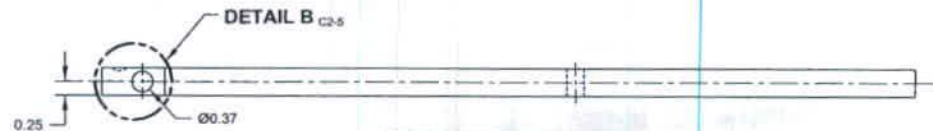
- 1) MATERIAL: N/A
- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) WELD PER QSI 004
- 9) MASK CHAIN FROM THIS POINT ON PRIOR TO POWDER COATING

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3943	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	09.10.15	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

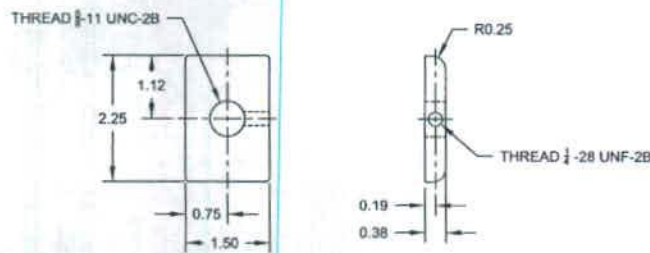
8 7 6 5 4 3 2 1



DETAIL B-B
(Dimple Detail)
(Scale 2X)

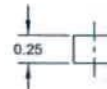


D3943-3 HANDLE EXTENSION



D3943-5 PLATE

Ø0.37 PILOT HOLE PER SHOP REQUIREMENT



D3943-7 STUD
(Scale 2X)

RELEASED
2009-10-19

- NOTES -11/-13:**
1) MATERIAL -3 & -5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S

OR : MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

- 2) FINISH -3: SPRAY PAINT YELLOW WITH BERTRAND CQ103B PER DART QSI 005 4.2
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A

DESIGN	DSTOW / AJS	DART AEROSPACE LTD
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. B
MFG. APPR.		D3943 SHEET 5 OF 5
APPROVED		TITLE SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY NTS
DATE	09.10.15	COPYRIGHT © 2008 BY DART AEROSPACE LTD

8 7 6 5 4 3 2 1

